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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/632,587

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Kiyomitsu Takizawa

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12/02/2002

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EXAMINER

KING, JUSTIN

ART UNIT

PAPER NUMBER

2181

DATE MAILED: 12/02/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/632,587

Applicant(s)

TAKIZAWA ET AL.

Examiner

Justin I. King

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Objection

1. Claim 2 is objected to because of the following informalities: the claim 2 recites the limitation "a powering means" twice in page 19, line 28 and page 20, line 8. The second occurrence should be corrected to "said powering means" or some other different term distinguishable from the first occurrence of the "powering means".
2. Claim 5 is objected to because of the following informalities: the claim 5 states the limitation of "second voltage dividers" (page 21, line 20) and "said second voltage divider" (page 21, line 25). For the clarification purpose, if Applicant intends to use only singular term in the line 25, Examiner recommends changing the line 25 to "each of said second voltage dividers" or "one of said second voltage dividers"; if Applicant intends to use plural term, Examiner recommends changing the "said second voltage divider" to plural term by adding "s" at the end. Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. Claims 1-9 are rejected under 35 U.S.C. 102(a) as being unpatentable over KEEMUX KVM Switch by the Network Technology Inc..

Referring to claim 1: The KEEMUX by the Network Technology Inc. is the switch box, which allows user to simultaneously access and control Sun and Mac computers.

The claimed recognizing means for recognizing the power-on state is inherent in every KVM switch box; it is the inherent fundamental requirement for any KVM switch box to be able recognize each attached computer's power-on state in order to properly arrange the input devices' sequence on selecting attached computers for inputting commands.

The claimed selective inputting means for selectively inputting commands to one of the plurality of attached computers is inherent; because the switch box is meant to share a set of input device among multiple computers, it is the switch box's intended purpose to selectively inputting commands to a particular attached computer.

The claimed code transmitting means for transmitting power control command is inherent. It is any KVM switch box's inherent purpose to transmit any commands, which includes the power control commands. The KEEMUX switch box is designed to work with Sun and Mac, and the Sun and Mac's keyboards have the power-on and power-off buttons; such that

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the KEEMUX has to carry these power-on and power-off commands between the Sun and Mac's keyboard and the attached Sun and Mac computers.

The claim 1's preamble states that the attached keyboard does not have the power control keys, and the claim 1 claims that the PC switch has a plurality of power control switches corresponding to a plurality of computers. The KEEMUX does not have these limitations. However, the court has held that rearranging parts of an invention involves only routine skill in the art (*In re Japikse*, 86 USPQ 70). Therefore, it is considered that the rearrangement of the power control key from the Sun and Mac's keyboard to the KVM switch box only involves routine skill in the computer art. Hence, it would have been obvious to one having ordinary skill in the computer art at time Applicant made the invention to adapt the routine skill in the art to the KEEMUX.

Referring to claim 2: Claim 2 is rejected over the KEEMUX as stated above; furthermore, the KEEMUX explicitly states its ability to broadcast keystrokes to computers for simultaneously start-up and shut-down. Both Sun and Mac's keyboard has one power-on key and one power-off key. It is inherent that the power-on key will only transmit power-on command, such that for any reason if any of the attached Sun or Mac computers are not power-on at the first press of the power-on key, the second press of the power-on key will retry to power these computers on.

Referring to claim 3: Claim 3 is rejected over the KEEMUX as the claim 2 stated above.

Referring to claim 4: Claim 4 is rejected over the KEEMUX as stated above; furthermore, both transistor and comparators are inherent. The transistor is a common electrical

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component for constructing logic gates in electric system. The comparator is a must in comparing attached computers' voltage in order to determine computers' power-on status.

Referring to claim 5: Claim 5 is rejected over the KEEMUX as the claim 4 stated above; furthermore, because of the simultaneously broadcasting power-on command, the first voltage dividers and transistors are necessary to reduce the keyboard's receiving voltage; the second voltage divider is also inherent in broadcasting process, the second voltage divider divides and distributes keyboard's signal to each computer.

Referring to claims 6-9: claims 6-9 are rejected over the KEEMUX as stated above; furthermore, whether the comparator is driven by keyboard's power or computer's power is a designer's choice. It is the computer's power supply terminal's inherent purpose to supply power to an attached device. It is also a known practice for keyboard to supply the power; for instance, the Quickcam has an adapter to connect to keyboard.

Conclusion

6. The prior art made of recorded and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 5,499,377 to Lee, Won S.: Lee discloses a multiple computer access switching system.

U.S. Patent No. 5,227,666 to Asprey, Robert R.: Asprey discloses a switching circuitry for coupling the power output of one of a plurality of power supplies to a keyboard. The switching circuitry includes transistors and amplifiers to regulate the voltages.

U.S. Patent No. 6,388,658 to Ahern et al.: Ahern's invention relates to a switching system for interconnecting a plurality of computer user terminals or workstations each having user interface devices, including a keyboard, a video display unit, and a cursor control device or mouse (KVM), with a plurality of computers in a computer network, allowing a user to access any one or more of said computers from the user interface devices of a single terminal or workstation. It is denoted "high end" because of the potentially large number of computers, which may be interconnected with the system.

U.S. Patent No. 6,069,615 to Abraham et al.: Abraham's invention discloses a microprocessor controlled assembly, which allows multiple computers and display screens to be controlled using a single external pointing device/keyboard combination.

U.S. Patent No. 6,138,191 to Fujii et al.: Fujii discloses a main control circuit, which is connected to the data I/P device, and a selection circuit for selectively providing the data and instructions from the data I/P device.

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U.S. Patent No. 5,754,881 to Aas, Eric F.: Aas discloses a method of controlling a PC parallel port switch for connecting multiple peripherals to the same parallel port.

U.S. Patent No. 4,866,667 to Shimada, Toshio: Shimada discloses a switching device for a plurality of RS232C interfaces.

U.S. Patent No. 5,689,244 to Iijima et al.: Iijima discloses a method of controlling communication for a communication system for connecting a plurality of electronic apparatuses through a communication control bus and allowing data communication between those electronic apparatuses wherein each of the electronic apparatuses performs connection control through the execution of a connection control command carried out by writing connection control information in a predetermined storage memory of its own or another electronic apparatus.

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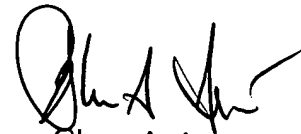
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Justin King whose telephone number is (703) 305-4571. The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:00 P.M..

If attempts to reach the examiner by telephones are unsuccessfully, the examiner's supervisor, Mark Reinhart can be reached at (703) 308-3110.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose number is (703)-306-5631.



Justin King
November 25, 2002



Glenn A. Auve
Primary Patent Examiner
Technology Center 2100